AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) In a network comprising a plurality of router nodes connected in the network by communication links, a method of providing quality of service assurances for transmitting packets over a channel ~~that transmits at at least a nominal bandwidth~~, the method comprising:

defining a plurality of classes, each of the classes representing an aggregate behavior of packets;

allocating to each of the classes a nominal departure rate at which the packets of that class are transmitted when an available bandwidth of the channel is operating at ~~the~~ an anticipated nominal bandwidth; and

assuring each of the classes a minimum allocation of the available bandwidth for transmitting packets of that class as a rate priority percentage if the available bandwidth of the channel is operating at less than the nominal bandwidth, ~~the minimum allocation representing a fixed lower limit of bandwidth allocated to that class~~ such that with the nominal departure rate and the rate priority-based minimum allocation working concurrently, actual bandwidth allocated to a given class at a given time is no less than the minimum allocation, but no more than the nominal departure rate,

wherein at least one of: the nominal departure rate or the minimum allocation is dynamically changeable.

2. (Currently Amended) The method of claim 1 wherein the step of assuring a minimum allocation to each of the classes comprises assigning a rate priority percentage to each of the classes that represents a minimum percentage of the available bandwidth that is allocated to that class.

3. (Original) The method of claim 1 wherein the minimum allocations assured to the

classes are proportionally different than the nominal departure rates allocated to these classes.

4. (Original) The method of claim 1 further comprising establishing a drop precedence for each of the classes to determine a priority for dropping packets of that class.

5. (Original) The method of claim 1 wherein the nominal departure rate assigned to each of the classes by a given one of the router nodes is a percentage of a nominal bandwidth of an outgoing communication link of that router node.

6. (Original) The method of claim 1 wherein a given router node has a plurality of outgoing communication links and the nominal departure rate allocated to a given class is different for the different outgoing communication links.

7. (Original) The method of claim 1 wherein the nominal departure rate allocated to a given class is different for different router nodes.

8. (Original) The method of claim 1 wherein a given router node has a plurality of outgoing communication links and the nominal departure rate together with the assured minimum allocation allocated to a given class is different for the different outgoing communication links.

9. (Original) The method of claim 1 wherein the nominal departure rate together with the minimum allocation allocated to a given class is different for different router nodes.

10. (Original) The method of claim 1 further comprising dropping packets from queues to limit the delay at a given router node.

11. (Original) The method of claim 10 further comprising attaining the minimum allocations assured to each of the service classes by providing an alternate route for packets of service classes in accordance with the rate priorities assigned to the service classes.

12. (Original) The method of claim 1 wherein at least one of the communication links is a wireless link.

13. (Original) The method of claim 1 further comprising assigning scheduling priorities to the classes based on a criterion.

14. (Original) The method of claim 13 wherein the criterion is a delay that each class can tolerate.

15. (Cancelled)

16. (Cancelled)

17. (Currently Amended) In a network, a router node that supports differentiated services, the router node comprising:

a classifier defining a plurality of classes, each of the classes representing an aggregate behavior of packets;

an allocater allocating to each of the classes a nominal departure rate at which the packets of that class are transmitted when an available bandwidth of a channel that transmits at at least a nominal bandwidth is operating at the nominal bandwidth; and

a rate prioritizer assigning each of the classes a minimum allocation of the available bandwidth for transmitting packets of that class as a rate priority percentage if the available bandwidth of the channel is operating at less than the nominal bandwidth, ~~the minimum allocation representing a fixed lower limit of bandwidth allocated to that class~~ such that with the nominal departure rate and the rate priority-based minimum

allocation working concurrently, actual bandwidth allocated to a given class at a given time is no less than the minimum allocation, but no more than the nominal departure rate,

wherein at least one of: the nominal departure rate or the minimum allocation is dynamically changeable.

18. (Original) The router node of claim 17 further comprising a plurality of outgoing communication links, and wherein the nominal departure rate allocated to a given class is different for different outgoing communication links.

19. (Currently Amended) The router node of claim 17 further comprising a plurality of outgoing communication links, and wherein the nominal departure rate together with the rate priority-based assured minimum allocation allocated to a given class is different for different outgoing communication links.

20. (Currently Amended) An article of manufacture having computer-readable program means embodied thereon for providing quality of service assurances for transmitting packets over a channel that transmits at at least a nominal bandwidth, the article comprising:

computer-readable means for defining a plurality of classes, each of the classes representing an aggregate behavior of packets;

computer-readable means for allocating to each of the classes a nominal departure rate at which the packets of that class are transmitted when an available bandwidth of the channel is operating at the nominal bandwidth; and

computer-readable means for assuring each of the classes a minimum allocation of the available bandwidth for transmitting packets of that class as a rate priority percentage if the available bandwidth of the channel is operating at less than the nominal bandwidth, ~~the minimum allocation representing a fixed lower limit of bandwidth allocated to that class~~ such that with the nominal departure rate and the rate priority-based minimum allocation working concurrently, actual bandwidth allocated to a given

class at a given time is no less than the minimum allocation, but no more than the nominal departure rate,

wherein at least one of: the nominal departure rate or the minimum allocation is dynamically changeable.

21. (Currently Amended) The method of claim 1, further comprising:

dynamically changing said at least one of the nominal departure rate and the rate priority-based minimum allocation in response to a change in a condition of at least one of said communication links.